

WHAT IS CLAIMED IS:

1 1. A material handling apparatus for mounting on a support structure,
2 the material handling apparatus comprising:

3 a telescopic riser portion coupled to the support structure;

4 a telescopic boom portion coupled to the riser portion;

5 a telescopic jib portion, coupled to the riser portion;

6 a hook coupled to the jib portion; and

7 a control apparatus coupled to each of the riser, boom, and jib
8 portions,

9 wherein, each of the telescopic portions can be independently,
10 selectively moved in a push-pull mode to manipulate material.

1 2. The material handling apparatus of claim 1, including a rotation
2 assembly coupled to the support structure and the riser portion, the rotation
3 assembly rotatable at least 360 degrees.

1 3. The material handling apparatus of claim 1, wherein the support
2 structure is mounted on a vehicle.

1 4. The material handling apparatus of claim 1, including an actuator
2 coupled to the riser portion and support structure.

1 5. The material handling apparatus of claim 1, including a second
2 actuator coupled to the boom portion and the riser portion.

1 6. The material handling apparatus of claim 1, including a third
2 actuator coupled to the jib portion and the riser portion.

1 7. The material handling apparatus of claim 4, 5, or 6, wherein the
2 actuator is an apparatus selected from a group including a hydraulic machine, a
3 pneumatic machine, and an electric motor.

1 8. The material handling apparatus of claim 1, including a control
2 apparatus is one of mounted on the support structure and remote from the
3 support structure.

1 9. The material handling apparatus of claim 3, including an outrigger
2 assembly coupled to the support structure.

1 10. A vehicle comprising:
2 a support structure coupled to a weight bearing element; and
3 a material handling apparatus coupled to the support structure, the
4 material handling apparatus comprising:
5 a telescopic riser portion coupled to the support structure;
6 a telescopic boom portion coupled to the riser portion;
7 a telescopic jib portion, coupled to the riser portion;
8 a hook coupled to the jib portion; and
9 a control apparatus coupled to each of the riser, boom, and jib
10 portions,
11 wherein, each of the telescopic portions can be independently,
12 selectively moved in a push-pull mode to manipulate material.

1 11. The vehicle of claim 10, including a rotation assembly coupled to
2 the support structure and the riser portion, the rotation assembly rotatable at
3 least 360 degrees.

1 12. The vehicle of claim 10, including an actuator coupled to the riser
2 portion and support structure.

1 13. The vehicle of claim 10, including a second actuator coupled to the
2 boom portion and the riser portion.

1 14. The vehicle of claim 10, including a third actuator coupled to the jib
2 portion and the riser portion.

1 15. The vehicle of claim 12, 13, or 14, wherein the actuator is an
2 apparatus selected from a group including a hydraulic machine, a pneumatic
3 machine, and an electric motor.

1 16. The vehicle of claim 10, including a control apparatus is one of
2 mounted on the support structure and remote from the support structure.

1 17. The vehicle of claim 10, including outrigger assembly coupled to
2 the support structure.

1 18. The vehicle of claim 10, wherein the support structure is
2 configured as one of a truck and a trailer.

1 19. The vehicle of claim 18, wherein the weight bearing element is a
2 wheel.